

## OVERVIEW AND COMPARISON OF THE VALUE ADDED TAX AND THE RETAIL SALES TAX

With the introduction of HR 900, there has been renewed interest in the Value Added Tax (VAT) as a revenue tool for Georgia. While the VAT does not appear to be under consideration in the revised version of HR 900, it does remain an interesting and innovative policy option for state tax revenues in Georgia. However, since only two states in the U.S. use a type of VAT, the tax is not familiar to many policymakers and constituents in Georgia. This policy brief provides an overview of the VAT and specifically summarizes the similarities and differences between a VAT and the much recognized general sales tax, or Retail Sales Tax (RST). Future briefs and reports will provide more detailed information regarding VAT experiences and choices. This brief is one in a series of briefs and reports that relate to tax policy options for Georgia.

### Background

In the U.S., the retail sales tax is a major tax policy instrument for most states governments. In Fiscal Year 2005, over all states the general sales tax made up 16 percent of state general revenue and 33 percent of state tax revenue—second only to the individual income tax in terms of the relative size of revenue. All states and the District of Columbia impose a general

general sales tax, with the exceptions of New Hampshire, Delaware, Alaska, Montana, and Oregon.<sup>1</sup> State rates vary from 4 to 7.25 percent. The sales tax bases vary by state, for example, 28 states with a general sales tax plus the District of Columbia exempt food at the state level, and only Illinois taxes sales of prescription drugs.<sup>2</sup>

Worldwide, the VAT has rapidly become a much more popular tax than the sales tax. The VAT is imposed in 123 countries (Ebrill, et al., 2001), while the RST is used in just a few countries, including the U.S., India, and Canada.<sup>3</sup> In the United States, New Hampshire and Michigan are the only states to impose a value added type of tax. In New Hampshire, this is the Business Enterprise Tax (BET) and in Michigan it is the Single Business Tax (SBT).<sup>4</sup> A future policy brief will provide more detailed information on the BET and SBT.<sup>5</sup>

### Basic Mechanics of a RST and VAT

A general sales tax is typically imposed on the purchase price of a good.<sup>6</sup> The tax is explicitly stated on the sales receipt and is collected at the point of sale from the consumer. The retailer is responsible

for collecting the tax and remitting it on a predetermined schedule to the government. The sales tax base in most states includes most tangible items of consumption, but many items are exempted or taxed at preferential rates. In general, the base is less inclusive of the consumption of services.

In all states, certain business purchases are exempt from the sales tax, but many purchases by businesses do not escape taxation, either because product is not exempt or it is not clear whether the product is exempt.<sup>7</sup> Taxing business inputs is problematic because it creates “tax cascading” – that is, if the tax imposed on an input gets added to the retail price, the consumer pays both taxes.

Under the most common form of the VAT, the credit-invoice VAT<sup>8</sup>, each firm pays a tax on its sales, but receives a credit for taxes paid on its purchases. Because of this design, a VAT is much more successful at exempting business inputs from tax.<sup>9</sup> For example, let us take a good that has four stages of production: manufacture, wholesale, retail, and final consumption. If the VAT rate is 10 percent, then the tax works as follows (see Table I)

- At the manufacture stage (line 1) , the business owner starts with some stock of business inputs—perhaps left over from the previous year. He sells his good for \$300 to the wholesaler. The tax administrator taxes the \$300 transaction at a rate of 10 percent and collects \$30 from the manufacturer (column c)
- The wholesaler purchases the input for \$300 from the manufacturer and sells it for \$700 to a retailer (line 2). The tax administration imposes a tax of \$70 on the sale ( $\$700 \times 10\% = \$70$ ), column c, but subtracts the \$30 tax that was paid by the manufacturer when she purchased the good, column d. In this case, the net tax paid by the wholesaler is \$40 ( $\$70 - \$30$ ), column e.
- The wholesaler sells her product to a retailer for \$900. The VAT assessed is \$90 ( $\$900 \times 10\%$ ), column c, but the \$70 that was paid on the purchase at the previous stage is subtracted so the net VAT at this stage is \$20, column e.
- Finally, the retailer sells the good to the consumer for \$1,000. The VAT assessed is \$100 (column c) but the \$90 paid on the retailer’s purchase is subtracted so the net VAT at this stage is \$10 (column e).
- Note that the total VAT paid in this production process is \$100. This is the same tax that would have been paid with a 10 percent retail sales tax on a \$1000 purchase.

In actual practice, a 10 percent general sales tax may produce more (or less!) revenue in the same example. If the sales tax were imposed at the final retail level, the tax would be \$100—exactly the total amount of the VAT (column f in Table I). However, because a sales tax is imposed at the retail stage and also collected at some prior stages of

production, the total sales tax paid may be greater than what would be paid under a VAT.<sup>10</sup> This is the example in column g of Table I. In this case, the tax is imposed at both the wholesale stage and the retail stage. If the tax is passed on to the final consumer, the total tax paid is \$190. It is likely that the tax from the wholesale stage would be passed forward to the retailer, thus increasing the selling price (and tax) at the retail stage. Of course, the final amount paid under the retail tax depends on how many intermediary transactions a particular commodity involves. The lower the number of stages in the production process the smaller is the potential for the tax cascading effect.

A great advantage of the credit-invoice VAT over the sales tax is its self-reinforcing compliance. In order for the purchaser to get a credit for previous VAT paid, he must have documentation of the previous purchase price and VAT paid. This feature of a VAT encourages taxpayers to collect receipts and do business only with sellers complying with the tax system. This is often referred to as the “self-policing” mechanism of the VAT.

### **Comparison between the VAT and Retail Sales Tax (RTS)**

In theory, the VAT and RST are equivalent taxes. This means that, on paper, the two taxes impose the same impact on the economy. However, in practice, the taxes are not equivalent because of the penchant for the sales tax to tax business inputs and to not tax all consumer purchases. The two taxes therefore can have different impacts on prices, production decisions, consumption, and revenue. Both taxes raise the price of consumer goods but the VAT guarantees a more uniform burden over all commodities.

If the VAT works well, it is thought to be less easily evaded than the RST. This comes about largely through the “self-policing” mechanism of the credit-invoice form of the VAT. The RST also has a self-policing mechanism in the form of suspension certificates that identify exempt purchasers but it is found to be less effective in international practice.

The VAT avoids the problem of tax cascading since this is built into the system, as demonstrated in Table I.<sup>11</sup> In the case of the RST, producers have to be specifically exempted from the system in order to avoid the potential for tax cascading. To exempt business inputs from the RST, at the point of sale, a vendor has to somehow certify that the purchase is made by a registered business and that the product is being used as a business input. The problem of taxation of business inputs can be mitigated by issuing “suspension certificates” by the tax

**TABLE 1. COMPARISON OF VAT, RST, AND TURNOVER TAXES**

<b>Stage of Production</b>	<b>Purchases (a)</b>	<b>Sales (b)</b>	<b>VAT on sales (c)</b>	<b>VAT on Purchases (d)</b>	<b>Net VAT (e)</b>	<b>RST with no tax on business inputs (f)</b>	<b>RST with tax on business inputs at retail stage (g)</b>
1. Manufacturer	--	300	$300 \cdot .1 = 30$	$0 \cdot .1 = 0$	$30 - 0 = 30$	----	-----
2. Wholesaler	300	700	$700 \cdot .1 = 70$	$300 \cdot .1 = 30$	$70 - 30 = 40$	----	----
3. Retailer	700	900	$900 \cdot .1 = 90$	$700 \cdot .1 = 70$	$90 - 70 = 20$	----	90
4. Consumer (final consumption)	900	1,000	$1000 \cdot .1 = 100$	$900 \cdot .1 = 90$	$100 - 90 = 10$		100
5. Total Tax Liability					100	100	190

authorities. However, these certificates pose a significant audit burden for the tax authorities.

By comparison, under the VAT, since all sales are taxable, the vendor does not need to make the distinction between taxable and exempt sales, but must account for tax paid on purchases in order to claim input credits.

## Summary

The VAT is an intriguing choice for taxation in Georgia in that it can be a less disruptive tax instrument than a retail sales tax. The administrative challenge of imposing a new tax like a VAT cannot be underestimated. While the effects of national VATs are well known, there are only a few examples of a VAT that is imposed at the subnational level such as a state or province. Because of this the effects of subnational VATs have not been well studied. However, the experiences of states like New Hampshire and Michigan may offer useful examples for Georgia.

## Notes

1. See [www.taxadmin.org](http://www.taxadmin.org), "State Sales Tax Rates, January 1, 2007."
2. Georgia, Louisiana, and North Carolina allow for local sales tax rate on food.
3. Canada in fact has a federal VAT and several provinces (Quebec and the Maritime Provinces) have subnational VATs coordinated in different ways with the federal VAT. All other provinces have preserved their sales taxes, which are not coordinated with the federal VAT. Several other countries around the world (e.g., Belarus, Nicaragua and until recently Russia) allow subnational units to have sales taxes which are not coordinated with the national VAT.
4. The Single Business Tax in Michigan is scheduled to be phased out completely by December 31, 2007.
5. Several countries around the world besides Canada have subnational VATs, including Brazil and Italy. These experiences will also be discussed in future policy briefs.
6. The general distinction among sales taxes is between turnover taxes, which levies the tax in all transactions, and retail or final sales taxes, which are designed to fall only on final sales to consumers.
7. See Ring, 1999. This analysis estimates that consumers only contribute about 60 percent of all sales tax revenues. The remaining 40 percent is paid by businesses, nonprofits, and governments.
8. There are three methods of computing a VAT. The most common form is the credit-invoice method used throughout Europe and elsewhere. Both Michigan and New Hampshire use the addition method for computing the base. A subtraction method is also used in some countries."
9. The specific tax base and administration of the tax can be done in various ways. These issues will be covered in detail in a future policy brief.

10. There can also be tax cascading in a VAT if certain sellers in the production chain are exempted from the credit-invoice system. When exempted these sellers do not charge VAT on their sales but are also unable to claim a credit on their inputs. The treatment of exemptions under a VAT is described more fully in an upcoming brief.

11. This assumes that the VAT is a "subtraction invoice-credit" VAT (the most popular around the world). The different types of VATs will be discussed in future policy briefs.

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